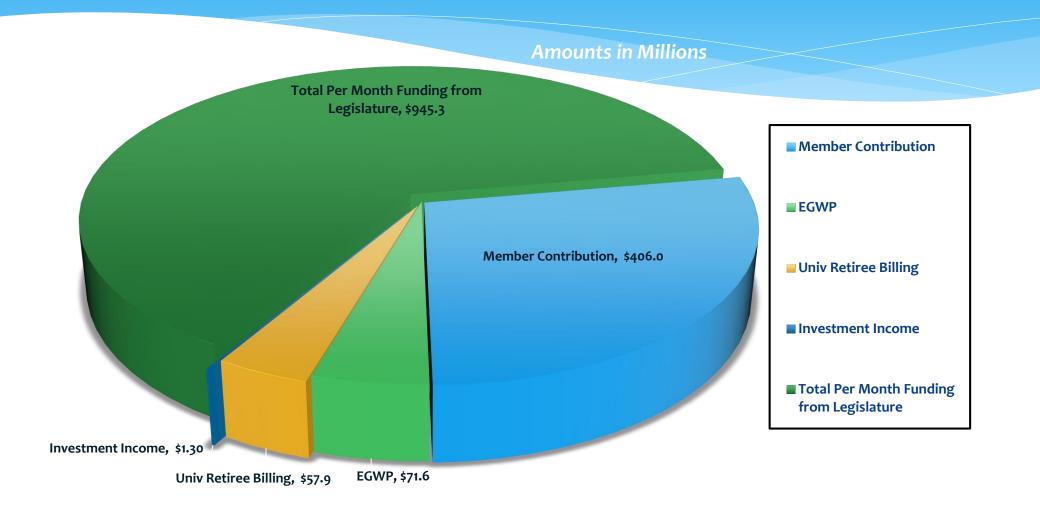
Three Year Projections 2018 – 2020

December 5, 2017
Diane E. Scott, CPA, CGMA
Retirement Systems of Alabama



PEEHIP Funding Sources—FY2017



Legislative PEEHIP Funding Rates 2007 - 2019

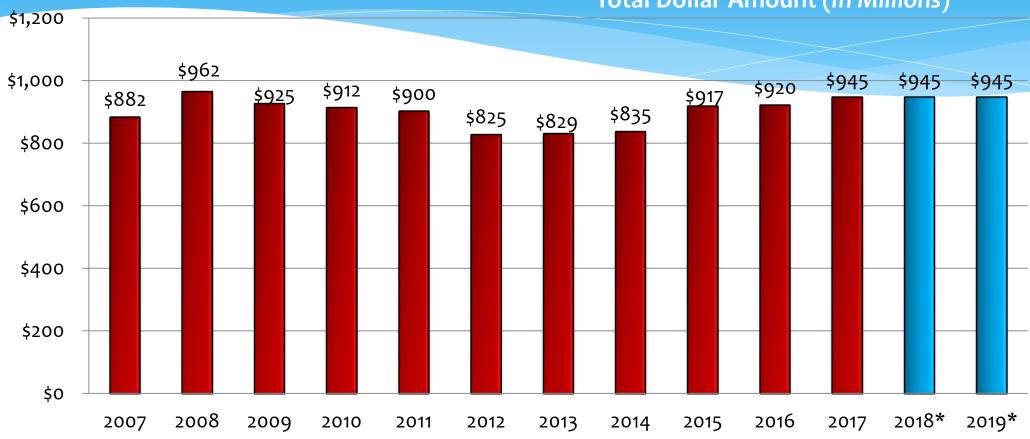
Rate Per Active Employee Per Month



Total PEEHIP Employer Costs 2007 - 2019

(Excludes Universities

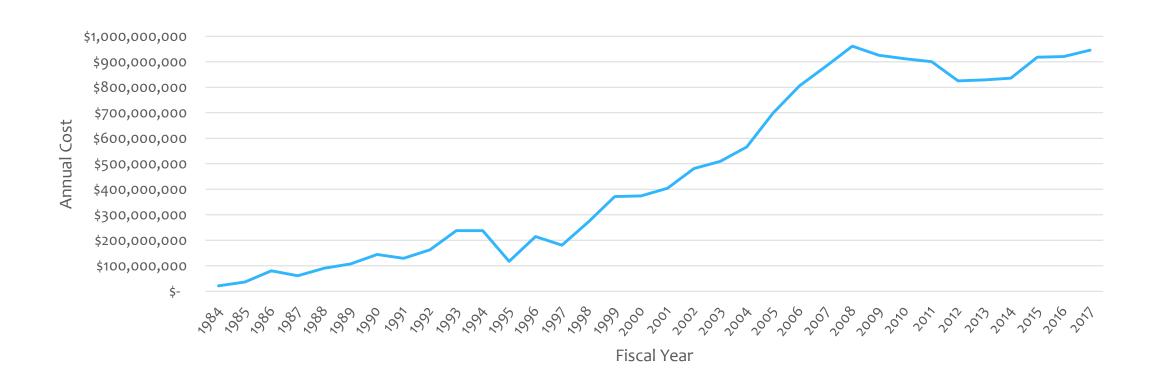




^{*} Based upon \$800 per active rate for FY18 and FY19.

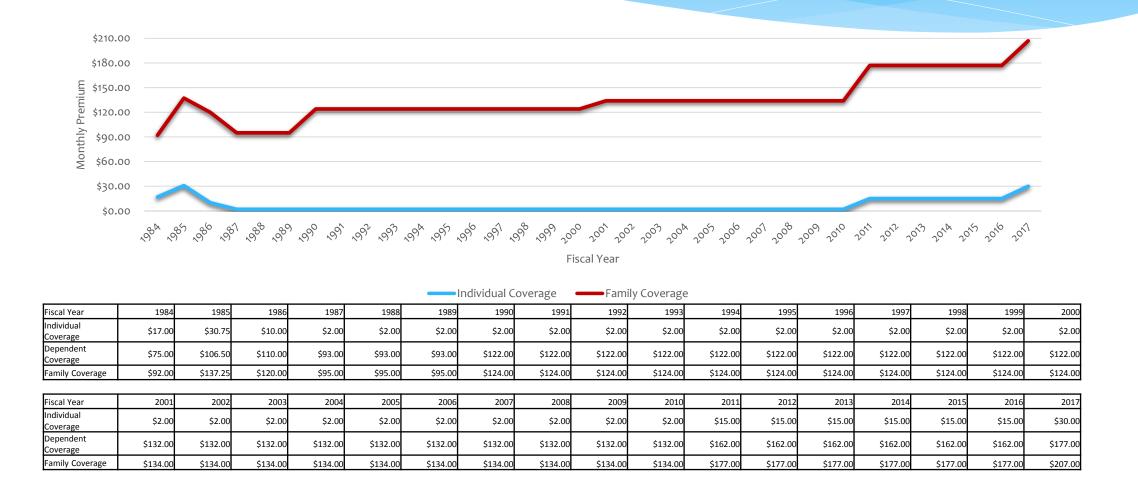
Total Annual PEEHIP Employer Cost Since Inception (1984 - 2017)

(Excludes Non-Participating Universities for Actives)



Employee Monthly Premium Since Inception (1984 – 2017)

(Active Only, excludes spousal surcharge)



Employee Monthly Premium Since Inception Conclusions

- ◆ Individual coverage premium remained unchanged at \$2 per month from 10/1/1986 9/30/2010 (24 years)
- Except for the first 3 transitional years of PEEHIP's existence (1984 1986), Individual coverage premium has been steady:
 - ★ FY 1987 FY 2010: \$2/mo 24 years
 - ★ FY 2011 FY 2016: \$15/mo 6 years
 - ♦ FY 2017 present: \$30/mo 2 years
- Except for the first 3 transitional years of PEEHIP's existence (1984 1986), Dependent coverage component has the following history:
 - ★ FY 1987 FY 1989: \$93/mo 3 years
 - ★ FY 1990 FY 2000: \$122/mo 11 years
 - ★ FY 2001 FY 2010: \$132/mo 10 years
 - ★ FY 2011 FY 2012: \$162/mo 2 years
 - ★ FY 2013 present: \$177/mo 6 years

PEEHIP Historical Employer and Employee Contributions

	3	4:5400	3			5	1	· ·	
		Employer Contribution	ution			Empic	Employee Contribution	Itlon	
Fiscal	Direct Appropriation	Active Fmplovee	Annual Total	Individual	Dependent	Family	Spousal	Wellness	Tobacco User
Year	from ETF	Per Month		0					Premium
1984**	\$ 21,444,990			\$ 17.00	\$ 75.00	\$ 92.00			
1985**	\$ 36,500,000			\$ 30.75	\$ 106.50	\$ 137.25			
1986**	\$ 80,460,828			\$ 10.00	\$ 110.00	\$ 120.00			
1987	\$ 60,986,400			\$ 2.00	\$ 93.00	\$ 95.00			
1988	\$ 90,237,368			\$ 2.00	\$ 93.00	\$ 95.00			
1989	\$ 107,573,360			\$ 2.00	\$ 93.00	\$ 95.00			
1990	\$ 144,323,360			\$ 2.00	\$ 122.00	\$ 124.00			
1991	\$ 129,405,360			\$ 2.00	\$122.00	\$ 124.00			
1992	\$ 162,763,300			\$ 2.00	\$ 122.00	\$ 124.00			
1993	\$ 237,911,040			\$ 2.00	\$122.00	\$ 124.00			
1994	\$ 237,911,040			\$ 2.00	\$ 122.00	\$ 124.00			
1995	\$ 117,500,000			\$ 2.00	\$ 122.00	\$ 124.00			
1996		\$ 210.50	\$ 214,606,434	\$ 2.00	\$ 122.00	\$ 124.00			
1997		\$ 165.00	\$ 180,450,600	\$ 2.00	\$ 122.00	\$ 124.00			
1998		\$ 200.00	\$ 271,768,000	\$ 2.00	\$ 122.00	\$ 124.00			
1999		\$ 225.00	\$ 371,273,000	\$ 2.00	\$ 122.00	\$ 124.00			
2000		\$ 317.00	\$ 373,727,784	\$ 2.00	\$ 122.00	\$ 124.00			
2001		\$ 345.00	\$ 404,200,620	\$ 2.00	\$ 132.00	\$ 134.00			
2002		\$ 414.00	\$ 481,170,672	\$ 2.00	\$ 132.00	\$ 134.00			
2003		\$ 433.00	\$ 509,244,372	\$ 2.00	\$ 132.00	\$ 134.00			
2004		\$ 497.00	\$ 566,126,268	\$ 2.00	\$ 132.00	\$ 134.00			
2002		\$ 583.00	\$ 698,704,512	\$ 2.00	\$ 132.00	\$ 134.00			
2006		\$ 668.00	\$ 805,407,600	\$ 2.00	\$ 132.00	\$ 134.00			\$ 20.00
2007		\$ 717.00	\$ 881,918,604	\$ 2.00	\$ 132.00	\$ 134.00			\$ 20.00
2008		\$ 775.00	\$ 961,452,126	\$ 2.00	\$ 132.00	\$ 134.00			\$ 22.00
2009		\$ 752.00	\$ 925,317,517	\$ 2.00	\$ 132.00	\$ 134.00			\$ 23.00
2010		\$ 752.00	\$ 911,875,393	\$ 2.00	\$ 132.00	\$ 134.00			\$ 25.00
2011		\$ 752.00	\$ 900,050,546	\$ 15.00	\$ 162.00	\$ 177.00			\$ 27.00
2012		\$ 714.00	\$ 825,157,866	\$ 15.00	\$ 162.00	\$ 177.00			\$ 28.00
2013		\$ 714.00	\$ 828,585,518	\$ 15.00	\$ 162.00	\$ 177.00			\$ 28.00
2014		\$ 714.00	\$ 835,761,336	\$ 15.00	\$ 162.00	\$ 177.00			\$ 28.00
2015		\$ 780.00	\$ 917,610,890	\$ 15.00	\$ 162.00	\$ 177.00			\$ 28.00
2016		\$ 780.00	\$ 920,206,786	\$ 15.00	\$ 162.00	\$ 177.00	\$ 25.00	\$ 50.00	\$ 50.00
2017		\$ 800.00	\$ 945,333,828	\$ 30.00	\$ 177.00	\$ 207.00	\$ 100.00	\$ 50.00	\$ 50.00
2018		\$ 800.00	\$ 945,333,828*	\$ 30.00	\$177.00	\$ 207.00	\$ 100.00	\$ 50.00	\$ 50.00
2019		\$ 800.00	\$ 945,333,828*	\$ 30.00	\$ 177.00	\$ 207.00	\$ 100.00	\$ 50.00	\$ 50.00

^{*}FY 2018 and FY 2019 Employer Contribution Total amount shown is budgeted amount.

Prior to FY 1996, PEEHIP received a direct appropriation from the ETF; therefore, there was no "Employer Cost for Active Employees" for those fiscal years.

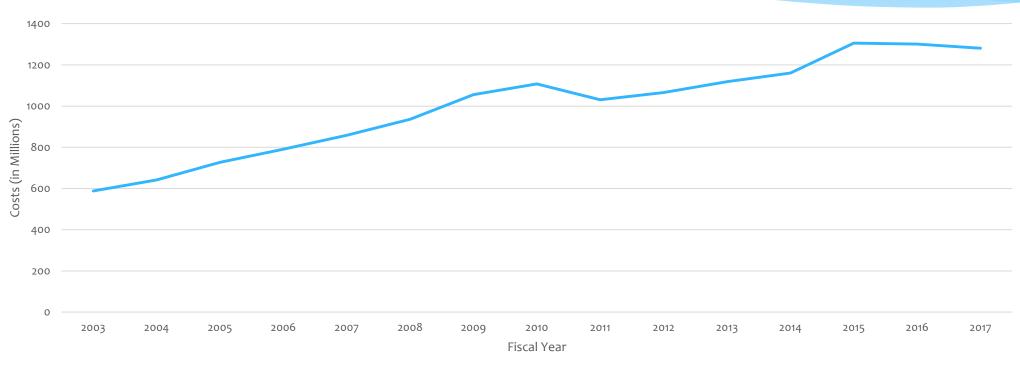
Note that the actual active total employee cost for dependent coverage equals the individual coverage premium plus the dependent coverage premium.

Information above was obtained by Legislative Fiscal Office 2017 Budget Fact Book and PEEHIP Data.

Family Coverage column does not include spousal surcharge, wellness premium or tobacco user premium.

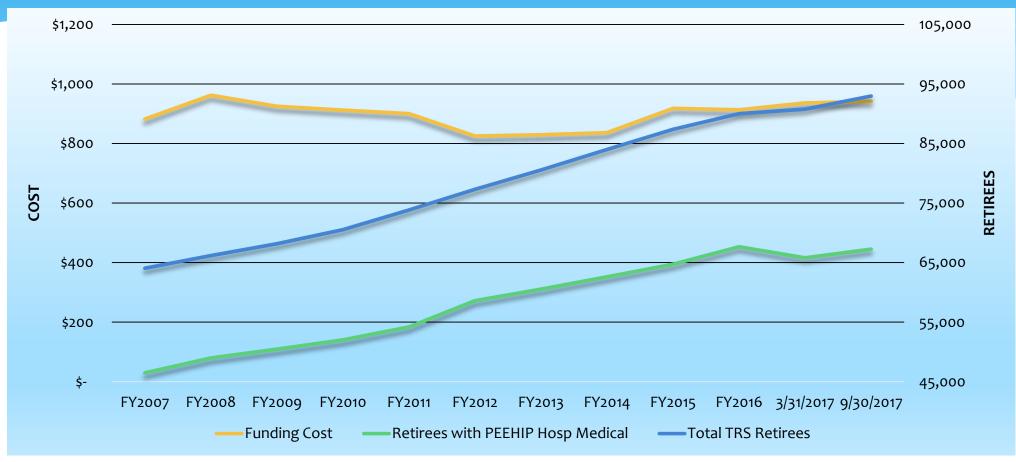
^{**}Transition years from individual groups to unified PEEHIP plan.

Total Medical and Pharmaceutical Costs



Conclusion: The annual growth rate of medical and pharmaceutical costs from 2003 to 2017 is 5.31%.

Active Funding – Increase in Retirees with PEEHIP 2007 - 2017

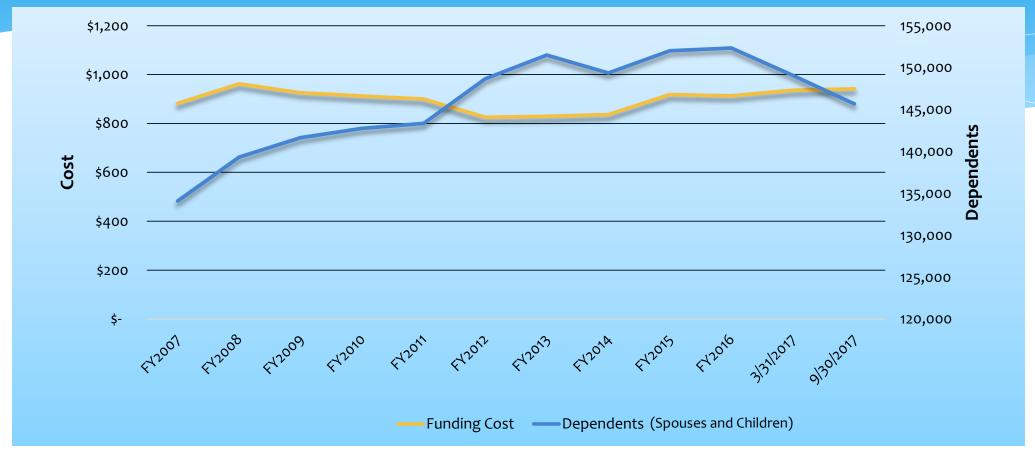


Conclusions:

- 1) The number of retirees eligible for PEEHIP hospital medical coverage is greater than the number of retirees taking the coverage by 25,727.
- 2) PEEHIP's funding from the Legislature has remained relatively flat over the period 2007 2017 while the number of retirees covered by PEEHIP's hospital medical coverage has increased by 28,911 or 45%.

Active Funding – Dependents 2007 - 2017

(Excludes VIVA)



Conclusions:

- 1) The number of dependents covered by PEEHIP hospital medical coverage has increased by 12,587 or 8.64% from 2007 2017.
- 2) The funding received from the Legislature has remained relatively flat since 2007.

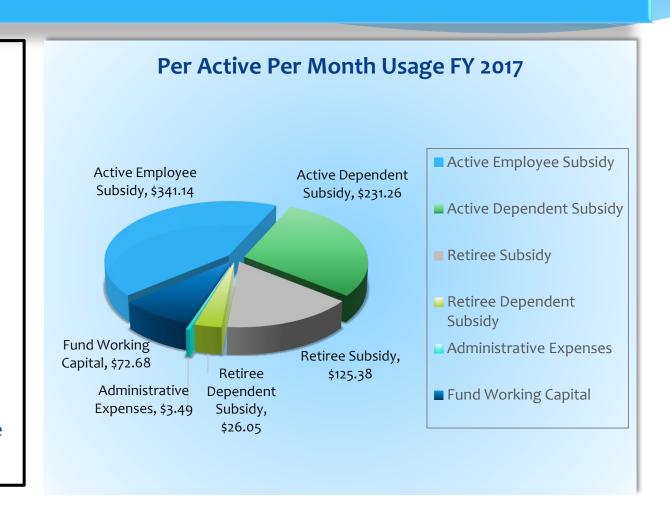
PEEHIP \$800 Per Active Per Month Funding Usage for FY 2017

PEEHIP received \$800 per active per month in funding from the Legislature for FY 2017 (\$945.3 million). This amount is used to cover the cost for the following after members have paid their monthly premiums and all other sources of funds are received:

- Active subsidy
- Retiree subsidy (except University Retirees)
- Dependent subsidy (Active & Retiree)
- Administrative expenses

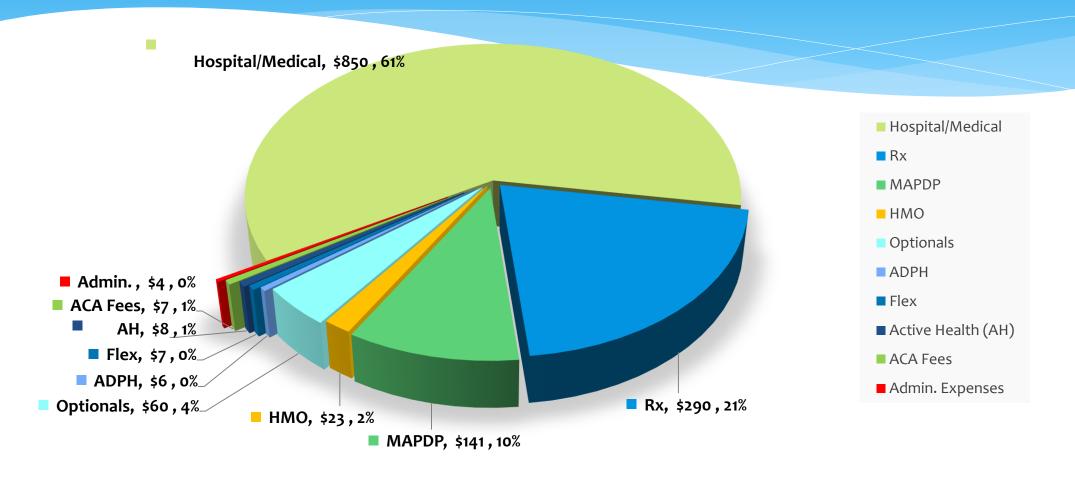
PEEHIP also received funding in FY 2017 from the following sources:

- Universities to cover their retirees when only University retirees are covered by PEEHIP (\$57.9 million)
- Employer Group Waiver Plan funds for Medicare eligible retirees (\$71.6 million)
- Investment Income (\$1.3 million)



PEEHIP FY 2017 Program Cost Chart

Amounts in Millions



PEEHIP FY 2017 Program Cost Chart

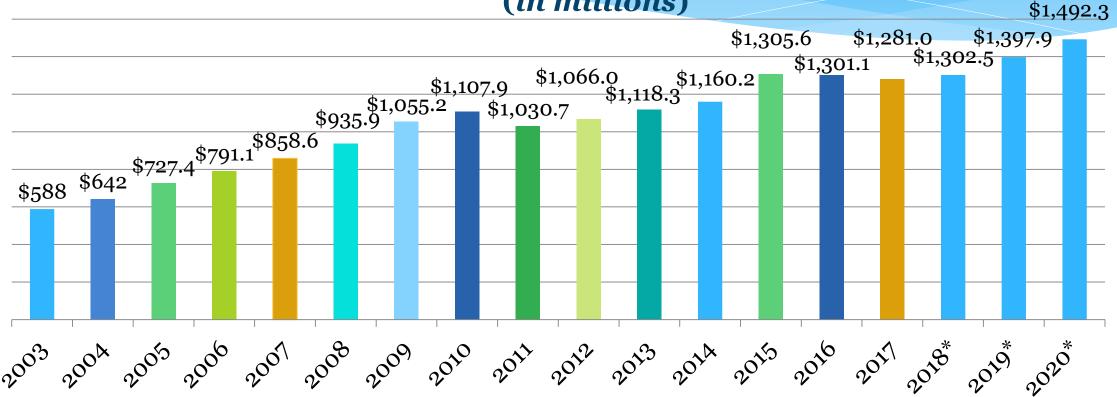
	Total (in millions)	% of Total	
Hospital/Medical	\$ 850.0	60.9%	
Rx	290.0	20.8	
MAPDP	141.0	10.1	
Subtotal	\$ 1,281.0		
НМО	23.0	1.6	
Optionals	60.0	4.3	
Alabama Dept. of Public Health	6.0	0.4	
Flex	7.0	0.5	
Active Health	8.0	0.6	
ACA Fees/Assessment	7.0	0.5	
Administrative Expenses	4.0	0.3	
Total Program Costs	\$ 1396.0	100.0%	
Less admin. fees paid to claims administrators	(37.0)		
Less admin. expenses paid from fund 0551	(4.0)		
Claims paid to providers	\$ 1355.0		

PEEHIP FY 2017 Program Cost Chart

	Cost (in millions)	% of Total Program Cost
Total Program Cost	\$ 1396.0	100.0
Admin Fees Paid to Claims Administrators	(37.0)	3.0
Admin Expenses From Fund 0551	(4.0)	0.3
Claims Paid to Providers	\$ 1,355.0	96.7%

Increasing Medical and Pharmaceutical Costs 2003 - 2020

Total Medical & Pharmaceutical Costs (in millions)



^{*}Amounts for 2018, 2019 and 2020 are estimated per Segal Consulting per projections using actual claims through 9/30/2017. Includes costs of BCBS, MedImpact and United Healthcare. Annual Growth rate = 5.31% since 2003.

What has happened in 2017?

- Trend has been much better (lower) than expected. Hospital/Medical and Rx trend on a rolling 12-month basis as of September 30, 2017 are:
 - → Hospital/Medical-- (2.01%)
 - **♦** Rx-- (9.87%)
 - ◆ Composite Hospital/Medical Trend-- (4.87%)
 - ♦ Negative trends are uncommon of in today's environment
- ◆ From September 30, 2016 to October 1, 2017, 2,980 spouses enrolled in other healthcare coverage available to them. Since PEEHIP instituted a spousal surcharge (October 1, 2015), PEEHIP has seen a reduction of 3,367 spouses with hospital/medical/Rx coverage.
- ◆ Implemented Medicare Advantage plan for Medicare primary members and dependents effective January 1, 2017.

What has happened in 2017?

- ◆ PEEHIP continued to manage Rx costs with the following activities.
 - → Strengthening current prior authorizations
 - ★ Adding needed prior authorizations for current and new medications
 - ★ Adding drugs to the variable copay program
 - ★ Excluding new drugs as necessary
- ◆ PEEHIP continued to focus on the Wellness Program to allow members to better control chronic illnesses.
- ◆ PEEHIP is developing a pre-diabetes wellness program to launch in FY2018 as well as several other new programs designed to benefit members while lowering costs.

What has happened in 2017?

◆ Projections for 2017 were prepared at September 30, 2016 and again at March 31, 2017. Due to the significant positive changes occurring in the PEEHIP program between these two dates, the actual hospital/medical and Rx claims as of September 30, 2017 showed significant improvement over the original projections in the following areas:

Projection Update	Amounts in millions
FY2017 Projection at 9/30/2016	\$1,362.0
Gain due to reduction in enrollment	(24.8)
Gain due to claims trend reduction	(8.2)
Gain due to MAPDP projection	(27.0)
FY2017 Actual at 9/30/2017	<u>\$1,302.0</u>

^{*}Segal Consulting projects claims for BCBS, MI, UHC, Wellness Program and ACA Assessment which is 93% of all PEEHIP expenditures.

What are the opportunities related to the projections?

- PEEHIP is working closely with vendors related to managing costs.
- ◆ PEEHIP has challenged BCBS to reduce net payments per member per month to \$273.57 by 10/1/2018 and \$269.87 by 10/1/2019. As of 7/31/2017, net payments per member per month were \$282.63. That equates to a \$24.5 million reduction by 10/1/2018 and an additional \$10 million by 10/1/2019.
- ◆ PEEHIP has challenged MedImpact to provide opportunities to manage drug spending to \$88 per member per month (before Rebates).

What are the threats to the projections?

- ◆ Rx claim trends are projected to be 9% for FY2018 and FY2019. There are many very expensive specialty drugs in the pipeline set to be introduced in the next two-three years. The impact of these drugs could push the projected claims trend over 9%.
- Rx claim trends could be impacted by new indications for current specialty drugs.
- Repeal and/or replacement of the Affordable Care Act could pose a significant change to these projections
- ◆ The current projections include a \$36 PMPM health insurer fee beginning in CY2018 based upon current law. This fee, which applies to Medicare eligible contracts, has been delayed in previous years.
- Medical claim trend is projected at 3.1% for FY 2018 and 2.5% for FY 2019. Should the projected medical claim trend be higher than these percentages, the actual costs would be higher than projected.

PEEHIP Breakdown of Covered Lives on Hospital Medical Plan

		Septembe	er 30,2015			Septemb	er 30,2016			Decembe	er 31,2016			March	31,2017			Octobe	r 1,2017	
		Spouses				Not				Not				Not				Not		
		Not				Otherwis				Otherwis	Non-			Otherwis	Non-			Otherwis	Non-	
		Otherwise	Non-		Actives	e Eligible	Spousal		Actives	e Eligible	Spousal		Actives	e Eligible	Spousal		Actives	e Eligible	Spousal	
	Actives and	Eligible for	Spousal		and	for	Depende		and	for	Depende		and	for	Depende		and	for	Depende	
	Retirees	PEEHIP	Dependents	Total	Retirees	PEEHIP	nts	Total	Retirees	PEEHIP	nts	Total	Retirees	PEEHIP	nts	Total	Retirees	PEEHIP	nts	Total
Total	150,380	69,817	84,906	305,103	151,478	69,617	85,360	306,455	152,010	68,015	84,746	304,771	150,819	67,009	84,651	302,479	151,525	66,660	84,341	302,526
Spouses eligible for PEEHIP	5,114	(5,114)		-	5,301	(5,301)		-	5,225	(5,225)		-	5,226	(5,226)		-	5,324	(5,324)		-
Covered lives	155,494	64,703	84,906	305,103	156,779	64,316	85,360	306,455	157,235	62,790	84,746	304,771	156,045	61,783	84,651	302,479	156,849	61,336	84,341	302,526
BC	153,029	63,789	83,037	299,855	154,427	63,471	83,619	301,517	154,899	61,995	83,057	299,951	153,696	60,997	82,979	297,672	100,135	43,959	82,475	226,569
VIVA	2,465	914	1,869	5,248	2,352	845	1,741	4,938	2,336	795	1,689	4,820	2,349	786	1,672	4,807	2,375	739	1,611	4,725
UHC																	54,339	16,638	255	71,232
Total	155,494	64,703	84,906	305,103	156,779	64,316	85,360	306,455	157,235	62,790	84,746	304,771	156,045	61,783	84,651	302,479	156,849	61,336	84,341	302,526
This is a snapshot as of Octob	per 20, 2017																			

Since spousal surcharge implemented, reduction in spouses = 3,367 Reduction in spouses primarily contributed to a \$24 million reduction in costs.

Average Cost Per Covered Life – PEEHIP 8/1/2016 – 7/31/2017

	Member	Spouse	Non-Spousal Dependent
Active	\$ 4,300	\$ 5,423	\$ 1,908
Non-Medicare Eligible Retirees	\$ 7,017	\$ 8,160	\$ 2,414

Note: Spouses otherwise eligible for PEEHIP are included with members

Census (BCBS) on plan at 7/31/2017-Included claims incurred 8/1/2016 – 7/31/2017 with run out through 9/30/2017.

Conclusion: Based upon analysis of PEEHIP claims, spouses are <u>over 2 times</u> more costly than the non-spouse dependents (children).

Premiums in 2019 Budget

Amounts in millions

Revenue From Memb	er Premiı	ums	Projected Hospital Medical Claims	% Covered by Member
Current Coverage	\$	310.1		
Retirees - New		5.4		
Total Hospital Medical	\$	315.5		
Premium Discount		(5.1)		
Tobacco Surcharge		12.6		
Wellness		6.4		
Subtotal Hospital Medical	\$	329.4	\$ 1,395.7	23.6%
Optionals		68.7		
Flex		7.0		
Total Member Premiums (Estimated in FY 2019 Budget)	\$	405.1		

PEEHIP Funding Projection (FY 2019 Budget Request)

Assumptions:

- No funds restricted
- Current premium structure remains

	2017	2018	2019	2020
Unrestricted funds expected @ year end (in millions)	\$ 193.9	\$ 232.4	\$ 123.0	\$ (87.9)
Working capital requirement (in millions)	\$ 109.1	\$ 112 . 3	\$ 121.0	\$ 129.3
Amount over (under) working capital required (in millions)	<u>\$ 84.8</u>	<u>\$ 120.1</u>	<u>\$ 2.0</u>	\$ (217.2)
\$ Required increase to per active/mo amount	\$ 0.00	\$ 0.00	\$ 0.00	\$ 186.00
\$ Projected per active per month	\$ 800.00	\$ 800.00	\$ 800.00*	\$ 986.00

^{*}If premiums are required to be rolled back to pre-2017 approved levels, then the 2019 projected per active per month amount would increase to approximately \$952 (earlier projections were \$956). Updated based upon Segal projections through 9/30/2017, received 11/6/2017.

Conclusion: If premium increases remain and no refunds are issued, an additional \$186 per active per month (or \$217.2 million) will be required in

FY2020 to maintain an 8% reserve.

Alternative Funding Scenario # 1

Assumptions:

- 1. \$67.7 million in restricted funds @ 9/30/2017
- 2. \$56.1 million in additional funds restricted in FY2018 so that a total of \$123.8 million is restricted at 9/30/2018
- 3. No further restriction after 9/30/2018
- 4. FY 17 and FY 18 premium increases totaling approx. \$123.8 million are refunded.
- 5. Current premium structure in effect for FY2019 and after

	:	2017	2018	2019	2020
Total funds expected @ year end (in millions)	\$	193.90	\$ 164.70	\$ (0.80)	\$ (211.70)
Less 2017 premium increases		(67.70)	 (56.10)		
Net Funds without Premium Inc		126.20	108.60	(0.80)	(211.70)
Working Capital Requirement		109.10	 112.30	 121.00	 129.30
Amount over (under) working capital required (in millions)	\$	17.10	\$ (3.70)	\$ (121.80)	\$ (341.00)
\$ Required increase to per active/mo amount		-	3.00	104.00	291.00
\$ Projected per active per month	\$	800.00	\$ 803.00	\$ 904.00	\$ 1,091.00

Conclusion: If the premium increases from FY 2017 and FY 2018 are refunded (approx. \$123.8 million), FY 2019 will be short \$121.8 million.

Alternative Funding Scenario # 2

Assumptions:

- 1. Premium increases approved by Board April 2016 to be effective 10/1/2016 rolled back
- 2. Total premiums foregone FY2017--2020 = \$236.0 million

[2017		2018		2019		2020
Total funds expected @ year end (in millions)	\$ 193.90	\$	164.70	\$	(0.80)	\$	(211.70)
Less 2017 premium increases	(67.70)	·	(56.10)	·	(56.10)	·	(56.10)
Net Funds without Premium Inc Working Capital Requirement	126.20 109.10		108.60 112.30		(56.90) 121.00		(267.80) 129.30
Amount over (under) working capital required (in millions)	\$ 17.10	\$	(3.70)	\$	(177.90)	\$	(397.10)
\$ Required increase to per active/mo amount	-		3.00		152.00		339.00
\$ Projected per active per month	\$ 800.00	\$	803.00	\$	952.00*	\$	1,139.00

^{*} Earlier projections were \$956

Note: If the April 2016 premium increase had not been implemented, the 2019 budget request would have been at least \$952, and possibly \$24 million more for spouses who would have stayed on the plan.

Conclusion: If premiums for 2017 – 2020 are rolled back to approved rates prior to 10/1/2016 (any increases collected are also returned), PEEHIP will require additional funding of \$177.9 million in FY 2019 and \$397.1 million in FY 2020.

PEEHIP – OPEB Liability

Amounts in millions

Actuarial Valuation	Actuarial Accrued Liability (AAL)	Actuarial Value of Assets (AVA)	Unfunded AAL (UAAL)	
2009	\$ 11,916	\$ 670	\$ 11,246	
2010	\$ 11,585	\$ 750	\$ 10,835	
2011	\$ 9,081	\$ 778	\$ 8,303	
2012	\$ 8,957	\$ 930	\$ 8,027	
2013	\$ 8,994	\$ 1 , 075	\$ 7,919	
2014	\$ 9,523	\$ 1,208	\$ 8,315	
2015*	\$7,463	\$ 1,154	\$ 6,309	
2016	\$7,920	\$1,240	\$6,680	

^{*} The 9/30/2015 Valuation reflects the move to MAPD for post-65 benefits and the change in funding method from projected unit credit to entry age normal

Alabama Retired Education Employees' Healthcare Trust Fund

- ◆The Retiree Trust had a market balance of \$1.322 Billion as of 9/30/17. The assets of the Trust help to offset PEEHIP's unfunded liability.
- ◆The Retiree Trust has been funded by two transfers from PEEHIP in 2007 and 2008 (totaling \$631M), by monies from federal programs between 2007-2014, and by investment income.
- ◆ Monies were transferred from the Trust to PEEHIP in 2015 (\$92M) and 2016 (\$32M) to address funding shortfalls.
- ◆The legislature has never appropriated money to this Trust.
- ◆ No member money has ever been placed in this Trust.

Retiree Trust - Investment Return

Amounts in millions

Fiscal Year	Market Value	Return %
2008	\$ 598.9	-11.91
2009	\$ 682.7	8.01
2010	\$ 768.0	8.22
2011	\$ 802.7	1.09
2012	\$ 953.3	15.26
2013	\$ 1,073.6	11.34
2014	\$ 1,184.9	10.21
2015	\$ 1,097.5	0.19
2016	\$ 1,182.9	10.79
2017	\$1,322.0	11.60